

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
19 May 2005 (19.05.2005)

PCT

(10) International Publication Number
WO 2005/044341 A1

(51) International Patent Classification⁷: **A61M 1/36**, 1/16

(21) International Application Number:
PCT/EP2004/012528

(22) International Filing Date:
5 November 2004 (05.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03025640.8 7 November 2003 (07.11.2003) EP
03026854.4 24 November 2003 (24.11.2003) EP
03026855.1 24 November 2003 (24.11.2003) EP

(71) Applicant (for all designated States except US): **GAMBRO LUNDIA AB** [SE/SE]; Magistratsvägen 16, S-22643 Lund (SE).

(72) Inventors; and

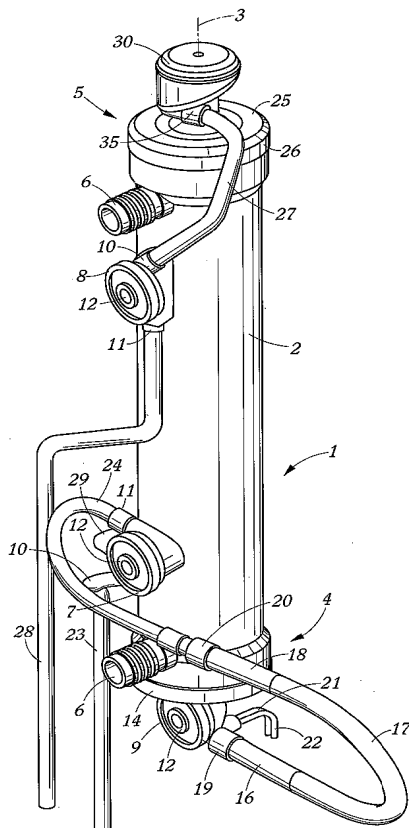
(75) Inventors/Applicants (for US only): **DANNENMAIER, Jürgen** [DE/DE]; Grünwaldstrasse 88, D-72336 Balingen (DE). **GOEHL, Hermann** [DE/DE]; Rosengarten 2, D-72406 Bisingen (DE). **ERTL, Thomas** [DE/DE]; Marienburgstrasse 56, D-72406 Bisingen (DE). **CHEVALLET, Jacques** [FR/FR]; 8 route de Ternay, F-69360 Serezin du Rhône (FR). **RIBOLZI, Francesco** [IT/IT]; via Camatta 1, I-41100 Modena (IT). **SEIDLER, Björn Frederik** [DE/DE]; Bozener Strasse 45, D-72379 Hechingen (DE). **JÖNSSON, Lennart** [SE/SE]; Ägovägen 7, S-24466 Furulund (SE). **NILSSON, Eddie** [SE/SE]; Munkatorp 1440, S-28010 Sösdala (SE).

(74) Agent: **LEJEUNE, Daniel**; Intellectual Property Department, 61 Avenue Tony Garnier, F-69357 Lyon (FR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,

[Continued on next page]

(54) Title: INTEGRATED BLOOD TREATMENT MODULE



(57) Abstract: An integrated blood treatment module comprises a blood treatment device (1) having a housing (2) and a first end-cap (4) and a second end-cap (5) closing both ends of the housing (2). A pump hose (17) for a peristaltic pump has a first end (18) that is secured to the housing (2) and a second end (16) that is connected to a blood inlet port (15) of the first end-cap (4) so as to form a loop. A degassing device (30) is connected to the second end-cap (5). The degassing device (30), which, in use, is full of liquid, comprises a hydrophobic membrane through which bubbles and micro-bubbles escape the degassing device.

WO 2005/044341 A1



CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

- (84) **Designated States** (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE,

EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

Published:

- with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.